Opportunities for Cultural Consumption: How is Cultural Participation in Switzerland Shaped by Regional Cultural Infrastructure?

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-- Revised Version --

Abstract

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Keywords: Cultural Consumption, Cultural Infrastructure, Production of Culture, Quasi-Experiments

1. Introduction and Research Question

International research on cultural consumption has yielded a series of stable results, notably with respect to the socio-structural composition of visitors to various types of cultural events as well as the distribution of cultural preferences in the population. In the case of high-brow culture (e. g. classical music, opera, fine arts), it is clear that it is appreciated particularly among those of higher class or status, by those with higher academic degrees, and more among women (Chan and Goldthorpe 2007; Gerhards 2008; Katz-Gerro 2002; 2011; DiMaggio and Mukhtar 2002). In addition, it is evident that these social groups are generally more culturally active and do not only participate in high culture events (Bennett et al. 1999; Bennett et al. 2009; Chan and Goldthorpe 2007; Roose et al. 2012). In the discussion of cultural omnivores, the thesis has even been put forward that those with higher educational

degrees and elevated class and status positions also have a broader palette of taste preferences (Peterson and Kern 1996; Rössel 2006; Katz-Gerro 2011).

Still, the research on the *explanation* for the socio-structural patterns of culture consumption exhibits desiderata. On the one hand, efforts to explain individual cultural consumption in comprehensive theoretical terms (for example as status signaling or as information-processing ability) have thus far been only partially empirically tested (see van Eijck 2011; Roose and Vander Stichele 2011; Kirchberg and Kuchar 2014). On the other hand, existing research has largely focused either on socio-structural determinants of cultural consumption or on individual motives for cultural demand. In our paper we take up this second issue. The cultural offerings as such are usually regarded as given and are rarely included as independent determinants of cultural consumption. To better explain cultural consumption, we wish to more closely illuminate the role the supply side plays. This is also an attempt to bring the thriving fields of cultural consumption on the one hand and production of culture on the other hand closer to each other (cf. Peterson/Berger 1975; Dowd 2011).

In our paper we derive the role of the supply structure from a rather simple decision theory model of cultural demand (Part 2.1.). From a macro-sociological perspective, we also develop theoretical arguments to explain the possible discrepancy between supply and demand in cultural markets (Part 2.2). In our empirical investigation, we examine the effects of regional supply on the level of cultural consumption of both high and popular culture in Switzerland. The country exhibits a rather uneven distribution of cultural infrastructure with concentrations of cultural offerings in the urban centres and thus may be well suited to analyze its impact of actual participation (Rössel and Weingartner 2015). Furthermore, we expect a regional comparison to be more informative than an international cross-country study since it is more suited to capture causal mechanisms. The regional level of a canton is closer to the action space of most persons than the national level. The probability of cultural consumption clearly declines with increasing spatial distance between a potential consumer and the cultural institution. Thus, the regional level is clearly closer to the actual action space than the national level (Rössel 2004; Spellerberg 2011; Otte forthcoming). The relevant data and methods are described in Parts 3.1 and 3.3.

We pursue two analytic strategies. First, we examine what influence the availability of cultural attractions (concerts, theatres, museums, cinemas) in individual cantons has on participation in cultural events. Since the greatest part of the funding for culture in Switzerland comes from the cantons and the communities, there is considerable variation in the supply of cultural attractions between the twenty-six cantons (Rössel and Weingartner 2015). Using a multilevel analysis, we can establish whether these differences in supply are

reflected in actual consumer behavior (Part 3.2). Since such a cross-sectional analysis is not able to establish causal mechanisms, we additionally used a quasi-experiment to determine whether the construction of a new cultural institution, one which brought about an immediate improvement in the supply of cultural attractions, led to a systematic change in cultural behavior in the affected region (Part 3.4). Taken together, these two methods help clarify whether the supply of culture plays a role in explaining cultural consumption. Our main finding is that the availability of cultural attractions does indeed contribute to explain cultural consumption. Nevertheless, individual socio-structural determinants remain, overall, of greater importance.

2. Theoretical Considerations

2.1. Cultural Consumption and Social Structure

Empirical research on cultural consumption has shown quite stable statistical relations between socio-structural variables and certain cultural behaviors. However, this has only partly been anchored in a theoretical framework. Therefore, we base our empirical study on a simple, but rather comprehensive explanatory model, which assumes that all social mechanisms are based on individual actions. This, in turn, is built on the premise that social structures or systems cannot causally explain by themselves but only with reference to goal-oriented actions of individuals (Hedström and Swedberg 1996). For that reason, the relation between the classic variables used in the analysis of social structures (class, stratum, income, education and gender) and specific patterns of cultural consumption must always be explained with reference to decisions and actions taken by individual actors.

To explain an individual decision to engage in a particular form of cultural consumption, we here rely on a relatively simple theoretical model encompassing the connections between socio-structural position, individual preferences, cultural infrastructure and actual cultural consumption.[ii] This model first assumes that what actors do is goal-directed. Next, it assumes the decision alternatives an actor faces are limited by particular resources and restrictions. Thus, the model presupposes actors which consistently pursue their goals while paying attention to various limiting conditions on their actions. In this model action is thus seen as the result of two successive filtering mechanisms (Opp 1999: 173; Hedström and Swedberg 1996: 128). The first structures all the possible alternatives in terms of the opportunity structure. This is seen as the relation of two entities: the restrictions existing in a specific situation and the resources an actor has at his or her disposal. Greater resources (such as economic and cultural capital or time) as a rule increase the opportunities an actor has. This has been established thoroughly in previous empirical research on cultural

consumption (DiMaggio/Mukthar 2004; Rössel 2004; Gerhards 2008; Roose/Van der Stichele 2011; Yaish/Katz-Gerro 2012). In the case of restrictions, external conditions an actor does not control in a particular situation (and thus cannot change, such as regional availability of cultural offerings or the costs of differing alternatives) limit what he or she can do. Tighter restrictions as a rule decrease the action opportunities an actor faces. Previous research on cultural consumption has only given sporadic attention to this part of the opportunity structures (see section 2.2), which is the main focus of this paper. Given the opportunity structures in a specific situation, then – in the second filter – the preferences of an actor come into play and he or she can select those alternatives corresponding to his or her personal liking or preferences. A strongly restrictive opportunity structure will only leave a few options open, so that the preferences themselves become less significant as an explanation for the actions that are taken.[iii] In addition, values and preferences will be especially relevant in decisions where there is little difference in cost between the alternatives (Best and Kroneberg 2012). By contrast, decisions in situations involving high cost differences will be more determined by the material resources at an actor's disposal, hence by characteristics that are tied to class and stratum and to the existing restrictions on acting, including the structure of what is on offer.

Social structure is taken into account in the sense that the action model sketched out here assumes that the resources available to an actor are primarily determined by his or her class position, yet also by other forms of socio-economic position. In addition, cultural preferences are particularly strongly affected both by education level and by age (Yaish and Katz-Gerro 2012). The basic assumption of the decision-theoretical model, therefore, is that the socio-structural variables influence cultural consumption through variables of preference and of resources (see figure 1).

The restrictions on actions in a given situation can thus be relatively independent of the socio-structural position of an actor, though in some cases they may be indirectly influenced by it. Thus, being relatively well endowed in a socio-economic sense, for example, can lead to a relatively open choice of where to live, e. g. in a location equipped with the kinds of cultural infrastructure that is preferred (Rössel 2012). This does depend on the particular manner in which inequality is regionally distributed, the balancing-out effects a welfare state may have on regional inequality, and the particular cultural policy in a given country (Häussermann and Siebel 1995). Existing studies of Switzerland (Goebel and Ehrensperger 2009; Rössel and Weingartner 2015) indicate the country does not exhibit strong spatial disparities in the availability of resources in the population and most public infrastructures, excepting cultural offerings (Manderscheid/Bergman 2008; Rössel and Weingartner 2015). For that reason, we do not expect a marked connection between socio-

economic inequality and regional cultural offerings, and also do not expect a mediating effect to exist that cultural offerings exert on the relationship between socio-structural aspects and cultural consumption. One could, for example, expect that a more highly developed cultural infrastructure in a canton leads to decreasing social inequality in cultural consumption.

Figure 1 to be placed around here.

Overall, we expect the supply of cultural goods and services in a given region to have an influence on the actual extent of cultural consumption, since it determines the restrictions on what actors can do and therefore also limits the alternatives they face in their decision to act. Underlying this assumption is a rather simple macro-micro-macro model. Firstly, we expect the macro-sociological restrictions to shape individual decisions, as laid down in detail in the next section (2.2). Second, we simply assume that individual decisions add up to a certain share of demand in the population and do not discuss possible interactions between consumers, leading e. g. to information cascades (Salganik/Watts 2009) A larger, more spatially spread out and less expensive set of cultural alternatives in a region lowers the restrictions on cultural consumption and therefore should lead to an increase in participation in that area.

2.2. Cultural Consumption and Cultural Markets

In our model, we assume that the restrictions on what cultural actors can do, in this case the cultural supply in a given area, have a relevant influence on how they make decisions, which here means on their cultural consumption. To some degree, this perspective is related to theories of supply-induced demand, a notion elaborated in particular in health economics (Folland et al. 2012: 305ff; Labelle et al. 1994). This research shows empirically that an increase in health services in a region (e.g., an increasing density of doctors) is often associated with an increase in the utilization of their services. This is taken to mean health providers deliberately stimulate demand for their services in order to keep their profits constant despite an overall increase in the number of health providers. The development of supply – ceteris paribus – is therefore causally linked to the development of the demand.

Also literature on cultural consumption exhibits some empirical evidence of the effect cultural offerings have on demand. Accordingly, in an internationally comparative study, Gerhards (2008) showed that in countries where there were more cultural attractions, the demand for such cultural products was also larger. A local study (Rössel 2004) also

demonstrated that high culture attractions were visited more often by those who lived closer to the city center, attributed to the fact that high culture offerings are concentrated in city centers and those who live nearby face lower transportation costs. Using the example of museum visits, Kirchberg (1998) showed that the museum entrance fees have a definite influence whether potential visitors decide to visit that museum. This dependence of cultural demand on price is widely discussed in cultural economics, where a consensus has formed that the degree of demand depends on the price of what is offered, hence that the law of demand holds (Seaman 2006). In other areas of consumption (such as of Fair Trade goods) it has also been shown that what is actually available or offered can have a clear influence on the actual demand for it (Koos 2012; Rössel et al. 2016).

At heart, these studies underscore that two specific restrictions are of particular relevance to the demand for culture: the price to attend and the spatial distance to a cultural event. The first has been extensively discussed in cultural economics, so we focus primarily on the second type of restriction. We discuss it in terms of the regional structure of what is on offer, which is linked in particular to higher transportation costs, both in terms of time spent and of financial outlays for those in regions supplied with differing amounts of cultural attractions and events.

At this point, one can ask the question how there can even be imbalances in supply and demand, as our study design presupposes. Only when particular regions are "undersupplied" or "oversupplied" with opportunities for cultural consumption could the supply, independent of the individual characteristics of the consumers, have an influence on the demand. From the perspective of classical economics, one should expect that at given prices either the enterprises active in this market would expand their offerings to meet existing demand or that other enterprises would crowd in to meet the excess in demand. In the case of an excess in supply, one should expect a reduction in prices or for enterprises to withdraw from the market (Varian 1995, Chapter 21). At given prices and with a given structure of demand, in other words, supply itself should not exert an independent influence but simply follow demand.

From our point of view, there are at least three key reasons to find such a discrepancy that would justify an independent influence of supply on demand:

(1) Economic geography has shown that in order for certain services to be offered or available, a sufficiently large catchment area with a certain population size or density around a central town or location is necessary. Behind this stands the assumption that goods and services are consumed to differing degrees (Heilbrun 1992; Christaller 1933). The more infrequently a product is demanded, on average, the larger the regional market has to be. For

that reason, such goods and services are then only available in central locations, resulting in a strongly regionally concentrated supply. The consequence is that certain areas will not have such services readily available because they lack such central locations. Those who live at a greater distance from such central locations will have to bear higher transportation costs to take advantage of that supply. Applied to our case, it means cantons lacking central towns will be undersupplied with certain cultural offerings. By the same token, strongly urbanized cantons will have a rich set of cultural attractions (Rössel and Weingartner 2015).

(2) One should also take into account that high-brow culture events are often dependent on public financing and subsidies. In a given region, the availability of cultural attractions thus may depend on political decisions. Since a substantial portion of the financing for cultural events is determined on the cantonal level, and since such decisions are frequently made in popular plebiscites by majority vote (Frey and Pommerehne 1989; Schulze and Ursprung 2000), a discrepancy may arise between supply and demand. That can be true even when there is a relatively large group of voters interested in publicly financing high culture events – yet one that does not constitute a majority: This would lead to an undersupply. The obverse can also be true if people vote in favor of financing a cultural institution because they see a utility in its existence for other reasons even when they do not take advantage of it themselves (Frey and Pommerehne 1989): This would lead to an oversupply of cultural institutions. Thus one might find either an undersupply or an oversupply of cultural institutions in given cantons, and that can in turn lead to difference in the cantonal level of high-brow culture that is consumed.

(3) Furthermore, there are economic barriers to entering the market of cultural production. As is true in other branches, these make the entry of new competitors less likely. Such barriers include the returns to scale that permit average costs for producing to be lower, the high fixed costs for productions, various cost advantages established producers have due to their greater experience or their capacity for innovation, as well as the established reputation certain producers have among consumers. Plus, those producers already in the market can raise the barriers for new enterprises in strategic ways (Saloner et al. 2001: 138-139, 217-237). That might include employing monopolistic or cartel-like structures, signaling a readiness to engage in a price war, or by a producer strategically monopolizing (potentially) available production space. All these can lead to reducing the cultural events that might otherwise be available (Peterson and Berger 1975). In our study, this is quite relevant, since such scarcity in regions that lack central locations (see 1, above) will be more strongly noticeable than in central towns. Barriers to market entry can thus contribute to a more marked spatial imbalance in cultural offerings.

In sum, there are empirical indicators that the structure of supply is relevant to the creation of demand in cultural consumption. There is also a clear theoretical justification for the associated discrepancy between supply and demand that can be applied to cultural consumption. Hence in our empirical study, our research hypothesis is that the cultural offerings in a canton will have an independent influence on the extent of cultural consumption. In contrast, we do not assume that the cultural supply mediates between socio-structural variables and cultural consumption, like, for example, expecting that a more highly developed cultural infrastructure in a canton leads to decreasing social inequality in cultural consumption.

3. Empirical Analysis

3.1. Multilevel Analysis

In empirically testing our hypotheses, we pursue two different strategies. First, using multilevel analysis, we investigate the effects of the supply of cultural goods and services in individual Swiss cantons on cultural participation there. We rely on data from the Swiss Federal Statistical Office (BfS) on "Cultural Participation in Switzerland in 2008," a nationwide survey of attitudes, preferences and participation with respect to a broad variety of artistic endeavors (Moeschler and Vanhooydonck 2011). This cross-sectional survey was conducted among the Swiss resident population aged 15 and above. The available sample included a total of 4,346 individuals from all Swiss cantons (response rate: 66.2%).

The dependent variables (at the level of the individual, level 1) drawn from this dataset were attendance rates at three cultural venues: theaters, museums (all types) and cinemas. These were measured on a five-point scale ranging from 0 (never) to 4 (more than twelve times), referring to attendance frequency during the previous twelve months. In this manner, we could take account of both more high culture (theaters, museums) and more popular culture attractions (cinema). We decided to dichotomize the dependent variables (0 indicating no ore very scarce attendance) since the original five-point scales are highly skewed and thus not normally distributed.

The BfS data were augmented by official cantonal and local statistics about the cultural offerings in the individual cantons. In the case of attendance to theaters and museums, per capita cantonal and community cultural expenditures in 2008 serve as the indicator of cultural supply. However, in cantonal statistics these expenditures are not recorded in categories which exactly fit to the individual cultural consumption information of the BfS dataset. This leads to a slight mismatch in content between first level dependent and second

level independent variables. In our case, per capita expenditures for "concerts and theater" were regarded as relevant for explaining theater attendance, and per capita expenditures for "museums and art" as relevant for explaining museum visits. Since most funding for culture in Switzerland is provided at cantonal and community levels, this information can be interpreted as an indirect indicator of the actual cantonal offerings in the realm of theaters and museums. For cinema, a direct supply-indicator exists, since Swiss film and cinema statistics list both the number of cinemas and of cinema seats for each canton (see BfS 2013). From this, the per capita number of cinema seats in each canton in 2008 was calculated.

The information at the cantonal level (level 2) was linked to the cultural participation dataset in such a manner that to each individual surveyed the corresponding value of the three cantonal variables (per capita expenditures for concerts and theater; per capita expenditures for museums and art; per capita number of cinema seats) could be assigned. In order to isolate the effect of cultural supply from other determinants of cultural consumption (cf. figure 1) we also included individual (level 1) control variables into our models. To capture their structural position we chose respondents' educational level (the original information of 15 educational degrees specific to the Swiss educational system was condensed to a categorial variable distinguishing between uncompleted schooling, mandatory schooling, vocational training, Swiss university entrance exam, higher vocational training, and university degree), occupational status (ISEI), income (a 13-category ordinal variable indicating respondents' households' yearly gross income), age (in years), and gender (female/male). Furthermore, musical taste was used as measure of cultural preferences. The latter is based on a list of 25 musical genres from which participants of the BfS survey could pick their three favorite ones. Using their first/most important preference statement we inferred participants' affiliation with one of Schulze's (1992) three aesthetic patterns: participants who chose classical music, opera, jazz, etc. as their first music preference were assigned to the highbrow pattern, participants who chose pop, rock, hip-hop, dance, etc. as their first preference were assigned to the action pattern, and participants who chose folk, traditional, light entertainment, brass music, etc. were assigned to the trivial pattern. Additionally we built a fourth category indicating a more regionally anchored middlebrow preference (Swiss/French/Italian/German chansons, blues/country). This results in a nominal variable with four categories representing respondents' most important musical preference.[iv] Table 1 provides an overview of all variables used in the multilevel analyses.

Table 1 to be placed around here.

By linking information measured at different levels, one arrives at a clustered data structure. This makes it necessary to use multilevel models in order to take account of the intra-cantonal dependence of individuals in statistical inference. Hence, for each of the three dependent variables, we calculated random-intercept logit regressions with maximum-likelihood estimates, as we assume the level of cultural participation to vary systematically between the cantons.

3.2. Results of the Multilevel Analysis

The results of the multilevel analyses can be seen in table 2 (theater attendance), table 3 (museum visits), and table 4 (cinema attendance). First, for all three areas of participation, a null model was estimated. From this, it becomes evident how the variation in the dependent variables is distributed between the level of the individual and the canton.

Table 2 to be placed around here.

There do not appear any fundamental differences between the cantons with respect to the frequency of theater attendance: at 0.009, the intra-class correlation (ICC, share of between-canton variance in the overall variance) is very low, showing that almost all variation in theater attendance is due to individual differences and not to differences between cantons. This more descriptive evaluation already points to the conclusion that theater attendance depends to an only very small degree on the respective canton-specific cultural supply. This impression is confirmed when estimating the effect of cantonal and community expenditures for concerts and theatre in model 1: the effect size is almost zero and not statistically significant, the residual ICC remains the same as in the null model meaning there is no level 2 variance explained by the expenditure measure. With the inclusion of cultural preferences and structural determinants in model 3 the residual ICC even goes up to 0,010. However, it yields positive level 1 effects of highbrow preferences, education, occupational status, income and being female.

Table 3 to be placed around here.

Attendance to museums and cinemas shows quite a different picture. Here, too, the larger part of the variance is found at the intra-cantonal level, but there are, in addition,

considerable differences between the cantons (ICC of 0.028 and 0.018). The crucial question is whether these differences between the cantons can be explained by the structure of cultural supply. The result is clear: both models 1 in tables 3 and 4 reveal large positive, highly significant effects of expenditures for museums and arts and number of cinema seats respectively. These effects are only marginally reduced when controlling for cultural preferences and structural determinants in models 3. Moreover, the ICCs are drastically reduced in models which include cultural supply indicators. So, the latter explain much of the variance in museum and cinema attendance between the cantons. Additionally, when comparing models 2 and 3 for all cultural domains, no mediation of structural and preference effects by supply indicators can be observed.

Table 4 to be placed around here.

One can thus conclude that the regional differentiation in cultural supply has a clearly measurable effect on cultural consumption behaviour in the respective region, even if this is not evident in all cultural realms to the same degree. Nevertheless, the multilevel analysis carried out here cannot lead to any clear conclusions about the causality involved. To address this weakness, a quasi-experimental examination of the structure of cultural offerings is presented in the next section.

3.3. Quasi-experimental Study

The multilevel analysis revealed that there is indeed a direct relationship between the configuration of the regional cultural infrastructure and the level of cultural consumption. However, from this it cannot be decided whether this relationship is a causal or a spurious one, even though we controlled for cultural preferences and structural position indicators. Moreover, the direction of causality remains ambiguous, as it could also be the case that cultural supply follows demand. Hence, the second part of the empirical analysis has a quasi-experimental design. Its goal is to identify to what extent the new construction of a cultural facility, and thus a sudden increase in cultural supply, has a causal influence on cultural participation in the respective region. To make things clear, this effect is far from trivial. Against it, one could easily assume that people visit the new facility *instead of* (not additional to) similar facilities existing in neighboring regions before. In this case, the increase in cultural supply would have an effect on the location of cultural consumption but not on its quantity. The latter is only true if the construction of a new facility generates either rising

attendance frequencies among the established audience or rising *attendance rates* among the regional population as a whole (attraction of new audience segments).

We selected the new construction, in 2000, of the *Théâtre du Passage* in the Swiss city of Neuchâtel, the capital of the eponymous Swiss canton. The construction of this theater is well suited for the study design used here, for a variety of reasons. First, this construction meant a sudden increase in cultural offerings, as it did not replace any previously existing theater: no theater of comparable size or comparable range of offerings existed either in the city of Neuchâtel or in the corresponding region. Up to 160 theater, opera and dance productions are produced by the *Théâtre du Passage* every year, with a fixed ensemble and at a professional level, in a facility with 700 seats and using modern stage technology. It is also well financed, largely through public monies. Prior to its construction, theater performances in the region could only be staged as irregular, small, non-professional productions in venues with 95 seats at most. Second, the cantons bordering Neuchâtel (which will serve as a control group), built no theaters in the time period in question, and thus there was no increase in what was culturally on offer in these cantons. These two points speak for calling the construction of the *Théâtre du Passage* a natural experiment. A further relevant point for the analysis is that individual-level data on theater visits both before and after this theater was built are available. It is thus possible to trace the effects of the increase in supply on behavior in this case.

The analytic technique follows the logic of the Difference-in-Differences method (see Angrist and Pischke 2009; Meyer 1995). In our case, what is investigated is how the outcome (frequency of theater visits) changes between the time before and after the treatment (the construction of the *Théâtre du Passage*). However, this is examined not just for the Canton of Neuchâtel, where the treatment took place and which thus serves as the experimental group, but also for a control group in which no treatment took place. In this way, the treatment effect can be isolated from all general developments in the frequency of theater visits which apply to both groups. This rests on the assumption that, in the absence of the treatment, developments in theater attendance in the experimental group would have been parallel to those in the control group. Therefore it is important to select the control group in such a manner that, with the exception of the treatment, it is as similar to the experimental group as possible. We selected the cantons of Fribourg, Vaud and Bern, which border the canton of Neuchâtel, as the control group. These are in immediate spatial proximity and do not differ substantially in their population structure from Neuchâtel. Moreover, interference between experimental and control group proved to be quite low, as visitor surveys in the *Théâtre du Passage* showed that about 85 percent came from the city of Neuchâtel and from surrounding communities in the Canton of Neuchâtel.[v] So, if the change in outcome before and after the treatment turns

out to be larger or smaller in the experimental group than in the control group, one can speak of a positive or negative causal effect of the treatment on the outcome.

For measuring the outcomes, we relied on the annual surveys of the Swiss Household Panel for the period from 1999 to 2008. These panel data make it possible to identify the canton of residence of each participant, such that only the respondents in the experimental and control groups could be extracted and correspondingly assigned. Overall, 4,596 persons, unevenly distributed across the ten years surveyed, could be followed, creating an unbalanced initial sample of 21,045 person-years. As the theater was inaugurated late in 2000, two measurement points (1999 and 2000) were available before the treatment and eight measurement points afterwards (2001-2008). The key dependent variable is the frequency of theater, opera and exhibition visits, dichotomized in such a manner that it distinguishes between respondents answering they "never" visited the theater, opera or exhibitions and those who visit these facilities. The disadvantage of this variable is that what is asked covers a number of different cultural events at once even though only the theater and opera visits in conjunction with the construction of the *Théâtre du Passage* are relevant. In the absence of alternatives, this weakness cannot be remedied.

To calculate the treatment effect, a logit regression (with robust standard errors) of the binary outcome was carried out with the pooled survey data. The independent variables included an indicator whether a respondent belonged to the experimental group (Neuchâtel = 1) or the control group (Fribourg, Vaud, Bern = 0) and an indicator whether the measurement took place after (2001 to 2008 = 1) or before the treatment (1999 and 2000 = 0). The treatment effect results from the integration of an interaction term between these two indicators (see Angrist and Pischke 2009: 233; Meyer 1995: 155). If it has a positive sign, it means that the time period after the treatment shows an increase in the likelihood of going to the theater only in the experimental group. That means the likelihood of a theater visit increases more in the experimental group than in the control group, allowing one to assume a positive causal effect of the treatment.

3.4. Results of the Quasi-experimental Study

To empirically establish the effect of constructing the *Théâtre du Passage* on cultural participation in the Canton of Neuchâtel, we trace how the outcome variable developed in the experimental and control groups. Since this is a binary frequency variable, one can also speak of the share of theater, opera and exhibition visitors. As figure 2 shows, the share of theater visitors in the Canton of Neuchâtel was considerably below that of the other cantons prior to the construction of the theater reflecting the regional undersupply with theatre offerings. It

was only after 2000, the year the *Théâtre du Passage* began staging its productions, that this share markedly rose. In 2002 it even exceeded the share of the control group, and, with the exception of 2003, remained above it for the remainder of the time period under investigation. By contrast, the share of theater visitors in the control group (Fribourg, Vaud, Bern) remained relatively constant from 1999 to 2006: construction of the theater in Neuchâtel does not seem to have had any great effect on that share. Only in 2007 and 2008 did this control group share markedly decline – though that decline occurred in the experimental group as well.

Figure 2 to be placed around here.

Overall, as one can already surmise from this description, construction of the *Théâtre du Passage* had a positive effect on the quantity of cultural consumption in the region. This assumption is also clearly confirmed in the statistical calculation of the treatment effect. From table 5, one can see that the interaction term between the experimental group and the post-treatment time period was clearly positive as well as statistically significant. This finding is further substantiated by model 2 in table 5 which integrates additional socio-structural control variables (education, occupational status, income, age, and gender). The interaction effect shows itself to be stable and even increases slightly. Taken together, one can conclude that by using the format of a natural experiment, we find clear proof of the independent, direct influence of cultural offerings on cultural behavior. Of course, this is not the only factor influencing cultural consumption, as a comparison of the values for pseudo-R^2 in both the models depicted in table 5 shows.

Table 5 to be placed around here.

4. Conclusion and Discussion

The focus of research on cultural consumption has thus far been on analyzing the relationship between socio-structural variables and particular forms of cultural consumption. There have also been some initial efforts to explain these statistical correlations more precisely in theoretical terms. Here we adopt a simple, but relatively comprehensive decision theory model which explains cultural consumption as a goal-oriented and preference-steered behavior on the part of actors who possess given opportunity structures. On the one hand, this model can explain the connection between social structure and cultural consumption, and on

the other points to the fact that what is culturally available might also exert an independent influence on cultural participation, which is the main focus of our paper. For that reason, in our empirical study, we examined whether the cultural offerings in Swiss cantons were relevant to the actual degree of cultural consumption.

The empirical analyses indicate that the structure of what is culturally available in the individual Swiss cantons can explain part of the variation in cultural behavior. This is particularly the case when explaining museum and cinema visits, where large parts of the inter-cantonal variation can be traced back to cantonal expenditures for museums and arts and to the number of available cinema seats. Nevertheless, the largest difference in cultural behavior remains at the level of the individual, which could be demonstrated in our analyses especially with respect to theater attendance. In this, individual cantons show virtually no difference, so that the differing structure of offerings in this realm of culture cannot be said to have much influence. However, the construction of a new theater in a region that to date had no equivalent can lead to a marked increase in demand. We could show this with the help of a quasi-experimental study, where an increase in theater attendance rates was triggered by the construction of the *Théâtre du Passage* in Neuchâtel. In contrast to the cross-sectional multi-level analysis this part of our study suggests that there is indeed a causal link from cultural infrastructure to cultural participation.

In interpreting the results we have to take into account that in some of our analyses there was no complete correspondence in content between the data on cultural participation and cultural supply. Thus, the outcome variable in the experimental study referred not just to attending the theater and the opera, but also to going to exhibitions. A more precise measurement ought to show stronger effects than are evident in our study. The measure of what was on offer for explaining theater visits in the multilevel analysis contained, in the cantonal expenditures for the theater, expenditures for concerts as well, which certainly represents a different realm of behavior. This might explain why the results in this domain were not statistically significant. As a result, some of the findings presented are influenced by considerable measurement errors arising from the database.

In addition, in the multilevel analysis, we had to rely on relatively unspecific information about the structure of cultural offerings that covered a rather large geographic area. More significant might be the actual distances to cultural facilities individuals face and the expenditure of time associated with attending events there. Also left out of consideration were the economic constraints on action. For many consumers, the price for consuming cultural goods and services represent a significant barrier to actually consuming them (Kirchberg 1998; Seaman 2006). From this, one can conclude that further research on cultural

consumption should be sure to collect more precise data on restraints on action that cultural offerings impose. Even with the relatively general data presented here, it is clear that taking account of the structure of cultural supply is relevant in explaining cultural consumption, and it should not be underestimated.

5. References

Angrist, J. D., Pischke, J. 2009: Mostly harmless econometrics. Princeton: Princeton University Press.

Bennett, T., Emmison, M., Frow, J. 1999: Accounting for Tastes. Australian Everyday Cultures. Cambridge: Cambridge University Press.

Bennett, T., Savage, M., Silva, E., Warde, A., Gayo-Cal, M., Wright, D. 2009: Culture, Class, Distinction. New York: Routledge.

Best, H., Kroneberg, C. 2012: Die Low-Cost Hypothese: Theoretische Grundlagen und empirische Implikationen. Kölner Zeitschrift für Soziologie und Sozialpsychologie 64: 535-561.

BfS – Bundesamt für Statistik. 2013: Film / Kino. Detaillierte Daten. http://www.bfs.admin.ch/bfs/portal/de/index/themen/16/02/01/data.html (Consulted March 3, 2013).

Bourdieu, P., 1984: Distinction. A Social Critique of the Judgement of Taste. London: Routledge.

Chan, T., Goldthorpe, J. 2007: Class and Status. The Conceptual Distinction and its Empirical Relevance. American Sociological Review 72: 512-532.

Christaller, W. 1933: Die zentralen Orte in Süddeutschland. Eine ökonomisch-geographische Untersuchung über die Gesetzmässigkeit der Verbreitung und Entwicklung der Siedlungen mit städtischen Funktionen. Jena: Fischer.

DiMaggio, P., Mukhtar, T. 2004: Arts Participation as Cultural Capital in the United States, 1982 – 2002: Signs of Decline? Poetics 32: 169-194.

Dowd, T. 2011: Production and producers of lifestyles. The fields of popular and classical music in the United States. In: J. Rössel and G. Otte (eds): Lebensstilforschung (Special Issue 51 of Kölner Zeitschrift für Soziologie und Sozialpsychologie), 113 – 138. Wiesbaden: Springer VS.

Elster, J. 1985: Sour Grapes. Studies in the Subversion of Rationality. Cambridge: Cambridge University Press.

Folland, S., Goodman, A., Stano, M. 2012: Economics of Health and Health Care. Boston: Pearson Education.

Frey, B. S., Pommerehne, W. 1989: Muses and Markets: Explorations in the Economics of the Arts. London: Blackwell.

Gerhards, J. 2008: Die kulturelle dominierende Klasse in Europa. Eine vergleichende Analyse der Mitgliedsländer der Europäischen Union im Anschluss an die Theorie von Pierre Bourdieu. Kölner Zeitschrift für Soziologie und Sozialpsychologie 60: 723-748.

Goebel, V., Ehrensperger, Y. 2009: Regionale Disparitäten in der Schweiz. Schlüsselindikatoren. Neuchâtel: Bundesamt für Statistik.

Häussermann, H., Siebel, W. 1995: Dienstleistungsgesellschaften. Frankfurt: Suhrkamp.

Hedström, P., Swedberg, R. 1996: Rational Choice, Empirical Research and the Sociological Tradition. European Sociological Review 12: 127-146.

Heilbrun, J., 1992: Art and Culture as Central Place Functions. Urban Studies 29: 209 – 215.

Katz-Gerro, T. 2002: Highbrow Cultural Consumption and Class Distinction in Italy, Israel, West Germany, Sweden, and the United States. Social Forces 81: 207-229.

Katz-Gerro, T. 2011: Cross-national cultural consumption research. Inspirations and disillusions. In: J. Rössel and G. Otte (eds): Lebensstilforschung (Special Issue 51 of Kölner Zeitschrift für Soziologie und Sozialpsychologie), 339 – 360. Wiesbaden: Springer VS.

Kirchberg, V. 1998: Entrance Fee as a Subjective Barrier to Visiting Museums. Journal of Cultural Economics 22: 1-13.

Kirchberg, V. 2005: Gesellschaftliche Funktionen von Museen. Makro-, meso- und mikrosoziologische Perspektiven. Wiesbaden: Springer VS.

Kirchberg, V. Kuchar, R. 2014: States of comparability. A meta-study of representative population surveys and studies on cultural consumption. Poetics 43: 172 – 191.

Koos, S. 2012: What Drives Political Consumption in Europe? A Multi-level Analysis on Individual Characteristics, Opportunity Structures and Globalization. Acta Sociologica 55: 37-57.

Labelle, R., Stoddart, G., Rice, T. 1994: A Re-examination of the Meaning and Importance of Supplier-induced Demand. Journal of Health Economics 13: 374-368.

Manderscheid/Bergman 2008: Spatial Patterns and Social Inequality in Switzerland – Modern or Postmodern? In: G. Pflieger, L. Pattaroni, C. Jemelin, V. Kaufmann (eds.): The Social Fabric of the Networked City, 41 - 65. Lausanne: EFPL-Press.

Meyer, B. D. 1995: Natural and Quasi-Experiments in Economics. Journal of Business & Economic Statistics 13: 151-161.

Moeschler, O., Vanhooydonck, S. 2011: Kulturverhalten in der Schweiz. Eine vertiefende Analyse – Erhebung 2008. Neuchâtel: Bundesamt für Statistik.

Opp, K.-D. 1999: Contending Conceptions of the Theory of Rational Action. Journal of Theoretical Politics 11: 171-202.

Otte, G. 2016, forthcoming: Children of the Night. Soziale Hierarchien und symbolische Grenzziehungen in Clubs und Diskotheken. Wiesbaden: Springer.

Peterson, R., Berger, D.G. 1975: Cycles in Symbol Production: The Case of Popular Music. American Sociological Review 40: 158-173.

Peterson, R., Kern R. M. 1996: Changing Highbrow Taste. From Snob to Omnivore. American Sociological Review 61: 900 – 907.

Roose, H., Vander Stichele, A. 2011: Living Room versus Concert Hall: Patterns of Music Consumption in Flanders. Social Forces 89: 185-207.

Roose, H, van Eijck, K., Lievens, J. 2012: Culture of Distinction or Culture of Openness? Using a Social Space Approach to Analyze the Social Structuring of Lifestyles. Poetics 40: 491-513.

Rössel, J. 2004: Von Lebensstilen zu kulturellen Präferenzen. Ein Vorschlag zur theoretischen Neuorientierung. Soziale Welt 55: 95 - 114.

Rössel, J. 2006: Allesfresser im Kinosaal? Zur Übertragbarkeit des Konzepts der kulturellen Allesfresser auf Deutschland. Soziale Welt 57: 259-272.

Rössel, J. 2011: Soziologische Theorien in der Lebensstilforschung. In: J. Rössel and G. Otte (eds): Lebensstilforschung (Special Issue 51 of Kölner Zeitschrift für Soziologie und Sozialpsychologie), 35 – 61. Wiesbaden: Springer VS.

Rössel, J. Hölscher, M. 2012: Lebensstile und Wohnstandortwahl. Kölner Zeitschrift für Soziologie und Sozialpsychologie 64: 303-327.

Rössel, J. Weingartner, S. 2015: Nothing but the Cuckoo Clock? Determinants of Public Funding of Culture in Switzerland 1977 - 2010. Poetics, 49: 43-59

Rössel, J. Schenk, P. Sunderer, G. 2016: Sind Deutschschweizer altruistischer als Deutsche? Ein Vergleich des Fair Trade Konsums in Deutschland und der Schweiz. Forthcoming in: Berliner Journal für Soziologie.

Salganik, M. J.; Watts; D. J. 2009: Social influence. The puzzling nature of success in cultural markets. In: P. Hedström and P. Bearman (eds.): Oxford Handbook of Analytical Sociology, 315 – 341. Oxford: Oxford University Press.

Saloner, G., Shepard, A., Podolny, J. 2001: Strategic Management. New York: Wiley.

Schulze, G. 1992: Die Erlebnisgesellschaft. Kultursoziologie der Gegenwart. Frankfurt a. M.: Campus

Schulze, G. G., Ursprung H. 2000: La Donna e Mobile – or is she? Voter Preferences and Public Support for the Performing Arts. Public Choice 102: 131-149.

Seaman, B. A. 2006: Empirical Studies of Demand for the Performing Arts. In V. Ginsburgh, D. Throsby (eds.): Handbook of the Economics of Art and Culture, 415-472. Amsterdam: Elsevier.

Spellerberg, A. 2011: Kultur in der Stadt – Autopflege auf dem Land? Eine Analyse sozialräumlicher Differenzierungen des Freizeitverhaltens auf Basis des SOEP 1998-2008.In: J. Rössel and G. Otte (eds): Lebensstilforschung (Special Issue 51 of Kölner Zeitschrift für Soziologie und Sozialpsychologie), 316 – 338. Wiesbaden: Springer VS.

Van Eijck, K. 2011: Vertical lifestyle differentiation. Resources, boundaries and the changing manifestations of social inequality. In: J. Rössel and G. Otte (eds): Lebensstilforschung (Special Issue 51 of Kölner Zeitschrift für Soziologie und Sozialpsychologie), 247 – 268. Wiesbaden: Springer VS.

Varian, H. 1995: Grundzüge der Mikroökonomik. München: Oldenbourg.

Weingartner, S. 2013: "Hochkulturelle Praxis und Frame-Selektion. Ein integrativer Erklärungsansatz des Kulturkonsums". *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 65 (1): 3-30

Yaish, M., Katz-Gerro. T. 2012: Disentangling cultural capital. The Consequences of Cultural and Economic Resources for Taste and Participation. European Sociological Review 28: 169-185.

Figures & Tables

Figure 1: The Individual Mechanism Connecting Social Structure and Cultural Consumption

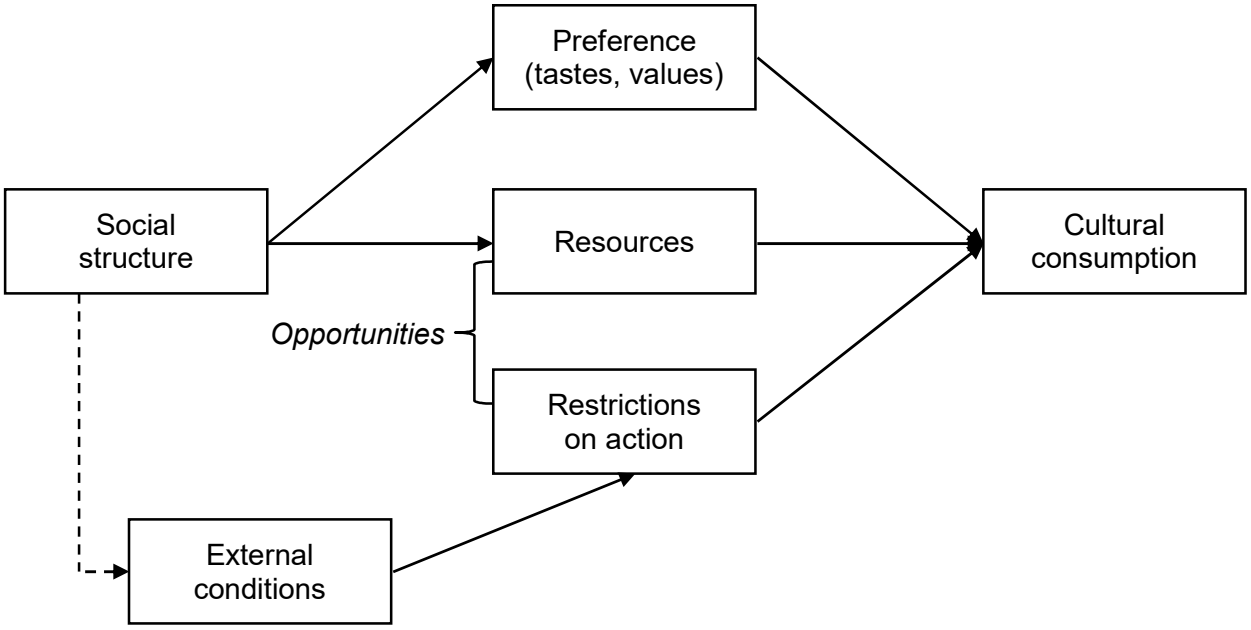

Table 1: Structure of Variables in the Multilevel Analyses

Dependent Variables (Level 1) *Cultural participation in 2008 (0/1 dichotomy)*	**Independent Variables (Level 2)** *Structure of cantonal cultural offerings in 2008*	**Control Variables (Level 1)** *Socio-structural factors*
Theater attendance	Per capita expenditures by cantons and communities for concerts and theaters	Musical taste Education Occupational status Income Age Gender
Museum attendance (all types)	Per capita expenditures by cantons and communities for museums and art	
Cinema attendance	Per capita number of cinema seats in the cantons	

Table 2: Random Intercept Logit Regression of Theater Attendance in 2008

		Null Model	Model 1	Model 2	Model 3
Per capita cantonal and community expenditures for concerts and theater (2008)		---	-0.009	---	-1.045
Cult. Pref.:	trivial	---	---	ref	ref
	action	---	---	-0.147	-0.147
	regional/middle	---	---	0.048	0.049
	highbrow	---	---	0.326**	0.329**
Education:	not completed	---	---	ref	ref
	mandatory schooling	---	---	0.697	0.677
	vocational training	---	---	0.998+	0.981+
	Swiss *Matura* (*Abitur*)	---	---	1.507**	1.493**
	higher vocational training	---	---	1.448**	1.430**
	applied or research university	---	---	1.660**	1.649**
Occupational status (ISEI)		---	---	0.007*	0.007*
Income (yearly, gross, household)		---	---	0.073***	0.073***
Age		---	---	-0.004	-0.004
Gender: female		---	---	0.485***	0.487***
Intercept (Overall)		-0.243***	-0.243**	-2.237***	-2.163***
SD between		0.175	0.175	0.200	0.186
Intra Class Correlation		0.009	0.009	0.012	0.010
N		3082	3082	3082	3082
Cluster (cantons)		26	26	26	26

2-Level random intercept logit regressions using ML estimation (adaptive quadrature). L1: individuals, L2: cantons. Logit-coefficients: $^{+}$ p<0.1, * p<0.05, ** p<0.01, *** p<0.001. Data: Swiss Federal Statistical Office 2008.

Table 3: Random Intercept Logit Regression of Museum Attendance in 2008

		Null Model	Model 1	Model 2	Model 3
Per capita cantonal and community expenditures for museums and art (2008)		---	2.851***	---	2.134*
Cult. Pref.:	trivial	---	---	ref	ref
	action	---	---	0.357*	0.357*
	regional/middle	---	---	0.622***	0.617***
	highbrow	---	---	1.199***	1.193***
Education:	not completed	---	---	ref	ref
	mandatory schooling	---	---	1.695	1.750+
	vocational training	---	---	2.250*	2.305*
	Swiss *Matura* (*Abitur*)	---	---	2.849**	2.902**
	higher vocational training	---	---	2.650*	2.705**
	applied or research university	---	---	3.183**	3.230**
Occupational status (ISEI)		---	---	0.015***	0.014***
Income (yearly, gross, household)		---	---	0.033*	0.034*
Age		---	---	-0.008**	-0.008**
Gender: female		---	---	-0.001	-0.006
Intercept (Overall)		-0.610***	-0.764***	-4.140***	-4.297***
SD between		0.309	0.206	0.265	0.207
Intra Class Correlation		0.028	0.013	0.021	0.013
N		3061	3061	3061	3061
Cluster (cantons)		25	25	25	25

2-Level random intercept logit regressions using ML estimation (adaptive quadrature). L1: individuals, L2: cantons. Logit-coefficients: $^{+}$ p<0.1, * p<0.05, ** p<0.01, *** p<0.001. Data: Swiss Federal Statistical Office 2008.

Table 4: Random Intercept Logit Regression of Cinema Attendance in 2008

		Null Model	Model 1	Model 2	Model 3
Per capita cantonal number of cinema seats (2008)		---	28.221**	---	27.802**
Cult. Pref.:	trivial	---	---	ref	ref
	action	---	---	0.949***	0.958***
	regional/middle	---	---	0.811***	0.799***
	highbrow	---	---	1.010***	1.001***
Education:	not completed	---	---	ref	ref
	mandatory schooling	---	---	-0.009	0.093
	vocational training	---	---	0.268	0.378
	Swiss *Matura* (*Abitur*)	---	---	0.738	0.831
	higher vocational training	---	---	0.548	0.662
	applied or research university	---	---	0.864+	0.953+
Occupational status (ISEI)		---	---	0.014***	0.014***
Income (yearly, gross, household)		---	---	0.025+	0.027+
Age		---	---	-0.043***	-0.043***
Gender: female		---	---	0.086	0.087
Intercept (Overall)		-0.695***	-1.106***	-0.733	-1.267*
SD between		0.243	0.167	0.002	0.001
Intra Class Correlation		0.018	0.008	0.000	0.000
N		3083	3083	3083	3083
Cluster (cantons)		26	26	26	26

2-Level random intercept logit regressions using ML estimation (adaptive quadrature). L1: individuals, L2: cantons. Logit-coefficients: $^{+}$ p<0.1, * p<0.05, ** p<0.01, *** p<0.001. Data: Swiss Federal Statistical Office 2008.

Figure 2: The Outcome Variable Trends in Experimental and Control Groups

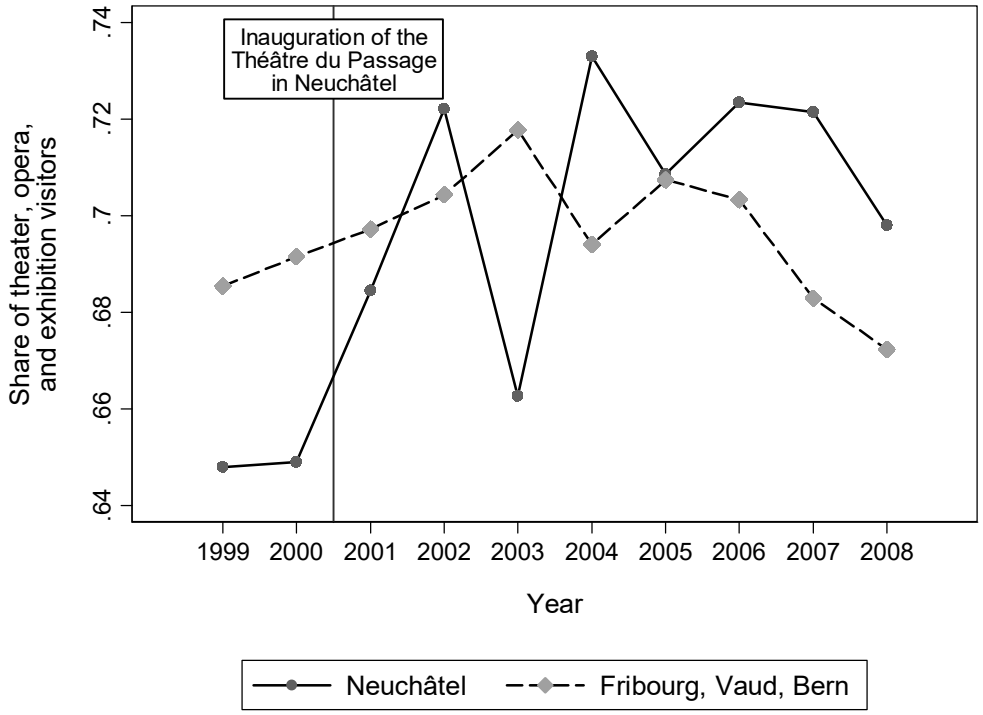

Table 5: Regression of Theater, Opera and Exhibition Visits on the Experimental Group and Treatment Period as well as their Interaction

		Model 1	Model 2
Treatment effect (*Experimental group* × *Post-treatment period*)		0.150*	0.161*
Experimental group (Neuchâtel)		-0.067	-0.053
Post-treatment period (2001-2008)		-0.093	-0.415*
Education:	not completed	---	ref
	mandatory schooling	---	-0.211
	lower vocational	---	0.178
	medium vocational	---	0.294
	Swiss *Matura* (*Abitur*)	---	1.123***
	higher vocational	---	0.663**
	applied university	---	1.256***
	research university / PhD	---	1.333***
EGP class:	higher controllers	---	ref
	lower controllers	---	0.090
	routine non-manual	---	-0.207
	self-employed	---	-0.341+
	skilled manual / manual supervision	---	-0.598***
	unskilled manual / farmers	---	-0.672***
Income (yearly, net, household)		---	0.000**
Age		---	0.020***
Gender: female		---	0.237***
Intercept (Overall)		0.872***	-0.652*
Pseudo-R^2		0.0012	0.1031
N		12549	12549

Logit regressions with robust standard errors, controlling for the time points surveyed.
Logit-coefficients: + p<0.1, * p<0.05, ** p<0.01, *** p<0.001. Data: Swiss Household Panel 2008.

[i] We would like to thank Frédéric Mairy who unhesitatingly provided all necessary information about the Théâtre du Passage in Neuchâtel. The quasi-experimental study presented in this paper would not have been possible without his help.
[ii] For more complex theoretical formulations, see Rössel 2011 and Weingartner 2013. For previous applications of rational choice models to cultural participation see: Kirchberg 2005.
[iii] Over longer time periods preferences may adapt to opportunities, however, with regard to cultural preferences this is not well established (Elster 1985; Spellerberg 2011). We do not focus on this aspect in this paper.
[iv] Previous studies have shown that musical tastes are extremely powerful indicators of taste patterns (Bourdieu 1984; Schulze 1992; Rössel 2004).

[v] These surveys are regularly conducted by the *Théâtre du Passage* itself. The corresponding information was given to the authors on request and backed by extracts of internal yearly theater statistics.